def. A function $f : \mathbf{R} \to \mathbf{R}$ is weakly continuous (two sided) at $a \in \mathbf{R}$ if there are sequencies $\{x_n\} \nearrow a$, $\{y_n\} \searrow a$ with $\lim_{n\to\infty} f(x_n) = \lim f(y_n) = f(a)$.

thm. Every function has only countably many points of weak discontinuity
and evry countable set is a set of weak discontinuity points.

def. $a \in \mathbf{R}$ is a point of weak symmetric continuity if there are sequencies $\{x_n\} \nearrow a$, $\{y_n\} \searrow a$ satisfying
$\frac{x_n+y_n}{2} = a$ and
$\lim_{n\to\infty} f(x_n) = \lim f(y_n)$

The most interesting case is when we consider functions from $\mathbf{R}$ to $\mathbf{N}$

thm. There is a function $f : \mathbf{R} \to \mathbf{N}$ with no points of weak symmetric continuity.

thm. Any subset of $\mathbf{R}$ is a set points of weak symmetric continuity.

def. A function is T-weak symmetric at a if there are sequencies $\{x_n\} \nearrow a$, $\{y_n\} \searrow a$ satisfying
$\frac{x_n+y_n}{2} = a$ and
$\forall_n \ f(x_n) = f(y_n) = f(a)$.

question Is every subset of $\mathbf{R}$ a set of t-symmetric continuity for some $f : \mathbf{R} \to \mathbf{N}$?